

06 **07** **08** **09** **10** **11** **12**

FIGURE 1A

GTCGAGGCTG	CAGTGAAGCTG	CGATGGTACC	ACTGCACTCC	AGCCTGGGAA	
ACGGAGCGGA	CCCTCAAAAC	AAAAACAAAA	ATGAAAAACA	AGCAAAACGAA	2800
GAATATAAAA	AACCTAGGGG	GTTGTAGTCG	ATGATCTGTA	AGGTGAGTTA	
TAATTGATGT	ATTGGAATAT	TTAGGAAAAG	GGCACTGGGA	ATATGCTAGG	2900
AACACCTGAT	GGAGTATCT	TTATTTCCAC	GGCAGCTTCG	TGGATACGTC	
TCATTGATTG	TCATGGCATC	ACTTTCCCCA	TGTAGGTGGG	CAGACATTGT	3000
TACCCCTGTT	TAATAAACAA	GGAACCAACA	GAGGCTTAGG	AGAGGAGTTG	
CCTGATGTCG	CATGATTGGT	GGCAGAGCCA	GGATCAACAG	TGGGGCAGGG	3100
TGGGGGACC	TGGCCAGGCA	GAGACTGGAT	GAGACCTGGG	GTGAGGAATG	
T					
GCAGGCACCC	AGTCAGGGCA	GAAACGAGG	GTTGGGACTT	ACTTTGAGTT	3200
TTGGATTGGA	TCAGTAAATT	CCCAAGAAAG	AGGGAGACTA	GGAGGCTAGT	
GAAGAATCTT	GGAGTAAAGG	GGAGGATTAC	TAAGGGACAT	GGAGTACCTA	3300
TCATGTGTGG	GACGCTTATC	TATATCTCTC	CCATCTGAAC	AAATCCTTAC	
AGGAACCCCA	GGAGACAGGT	TATCTCCACT	CTGCAAAATTG	GAAACACAGAT	3400
CCAGACAGATT	TCAGTTATGT	GTCTGAGAAG	TTCATTATATG	TGTCACAGAC	
G					
ACATTCTTAG	CTAAAAAGCT	AAGCATTCTG	AATTGGAACC	CAGAGAATTT	3500
TAGTCCAGCA	CTCTGGATCT	TTTCACTGCT	GTGATCCATC	TGGGAAAGGC	
TAGTGATGTG	GGCAAGGGGC	TTATTGCCCC	TTGGTGTTTG	GTTGGGAGTG	3600
GTGCGATTGG	TGGGTTGGGG	GCACAAGGCA	GCCAGATCTG	GGACTCCTGT	
G					
GCTTGTGACT	GGACTACAAA	GAGTTAAAGA	ACGTTGGGCC	TCCTCTCTCC	3700
GCCTCCTGTG	GCCTCCTCCT	CCAGCTCTTC	CTGTCCCGCT	GTGCAACAC	
TGCTCTCACT	TTCCCTCTCC	ACCTTCTCTC	CCCTCCTCTC	TGCTTTAATT	3800
TTCTCAGAAT	TCTCTGGACT	GAGGCTCCAG	TTCTGGCCTT	TGGGGTTCAA	
GATCACTGGG	ACCAGGCCGT	GATCTCTATG	CCCAGTCTTC	AACCTCAAC	3900
TGTACCCCA	AGGCACTTGG	GACGTCTCTG	ACAGACCCGAG	TCCCGGGAAG	
CCCCAGCACT	CGCCCTGCCA	CACTGCCCTG	AGCCCAAAATG	GGGGAGTGAG	4000
AGGCCATAGC	TGCTTGGCAT	GGGCCTCTCC	ACCGTGCCTG	ACCTGCTGCT	
[EXON 1: 4019..					
GCCACTGGTG	AGACCAGGGA	CAAAGGGAAG	AGTGGGCTGG	TGGGCAGGCG	4100
G					
..4052]					
ACCTTCCGGC	TGGCGTGGGC	CCTCTCCGGG	AGGGGGCCGA	GCCTCTCCTG	
CCCGGGCCTG	GTCTTGGCGC	CAGCCTCAGG	CCTGCAGGTC	CTAACCTCAG	4200
CCACTGCCAG	TGTGGGGTTC	CCATTATCAT	CGCCTTTTGG	AGTAGGGGGT	
GCCTGTAGGC	AGGGGAATGG	GAGAAGTTTG	AAAGGGAGAG	AGTAAAAGGA	4300
AGCCCTGGCC	CCTGACAGCG	GTGGAAGTTT	GTGGGCGGCC	AAGGGAATGT	
GGCCAGGAGA	TAGGGCCAGG	TGGGGGCAGA	TTTGGCGGGG	AAAAGAAAGG	4400
AGTGGGAGTA	GGAAGATTAG	TGCTCGGGAG	GTCCAGACGG	TTCTGAATTC	
TGTCCTCTGC	CTCAGCTGGC	TGGCCTGGAG	GCTGTTGGGC	CTGGGGGAGG	4500
CGAGGCTGCC	TGTGGAACCT	GGTGGAGCAC	ACCTGTAGG	GCAGGATTTT	
GGCGCTTGCT	GAAGTGGGGG	AGTGAGTTGA	GGAGTGGGGA	TGGGCTGGTG	4600
TGCTGGGTTT	GGGATGCTCA	TGGTGGGAGG	TATTGAGAA	TGGCTGGGA	
CACTGATAGG	GGCAGGGCAA	CCCACTGGAC	AGTGTCCCCA	GTGCCCTGGC	4700
CAAGCCCGCG	CCTCTCACCT	GGGGACATTC	TTTACCCTTT	TGCTGCTGCT	
TAGGCAGGTA	GCCGCTGTGG	GACTGAGCCT	TCCAGGGGAG	CTAGTCTCAG	4800
CCCCACCTGG	TCAGTGTCCC	TGGGCCTGTC	CTCCAGCTTC	CCCTCCCCGC	
TGCTTCTCAC	AGACCTAAAC	AACAATCCCT	TGGTTTCTTA	TTCTACAGTT	4900
CAGTTTGGGG	AAGTTGGTAG	AAAGTTGTTT	TCGTCACTGG	AAAATGTCCC	
TTTCTCTGCG	CTACGCTTTG	TTTCAATGTA	TCCTTGATCG	TCCTCCACGT	5000
CTTGGTCCGG	GAATCATCTC	GTTCAGATGT	CCTGGGCCCCA	TCTAGTCAGG	
CAGATTATTG	CTGCCCCGCC	CGGCCTCTGA	AGGCTGCGCC	TACCTCCCCCT	5100
CTCTTTTAGG	CCTTATACTC	TTCTCTCTCT	ACCAATTCCT	TCTTCCAGCA	
ATCTCCCCAG	ACTCTCTCTA	GACTTCTCAG	AGCCTCTTTT	TTTGAAATCT	5200

FIGURE 1B

TTTCTCGCTA	ATCCTCCTTC	CCCTCCTCTC	TGCTCCGCTC	TGGTCCCGGC	
CCCAGGTCCC	CAGGCAGCAC	GTCTCTGGTC	AGGGTCTCAC	TCTTCTCTCT	5300
CTGCTCTCCT	CTGCTCTCCT	AGTCCCACCC	GCTCTTCCTT	TCTTCCCAT	
GTCTCTCCCC	CACGGCTTCC	CCACCAGCCA	GCTGCCCTGA	CATCTCGCTT	5400
CTGTTTTCTG	TTTGGGGGCG	GCCCCGTGGT	CCCTCACATA	CCTCCTGCAT	
GAACAAGAGC	AGCTTATATA	ACCTAACCTT	CCATGCCTTC	GTCTCTTTAT	5500
CTCCAAAATG	GGTGTCAAGC	TCTTGACCTC	ATACTGTTGT	TTTGAAGATT	
GAATAGACTG	ATACATGTTA	AGTGTTCATT	TGATTTATTA	AGTGTGCGCT	5600
CTGGGCTAGA	CACCTGTGATA	GGTGTGGA	TTACAGCAGA	GAACAAAATC	
CCTGCCACCA	GCTTTGACAG	TCCATCAGGG	GAATAGGTTG	TAGCAAAATAG	5700
AAAGCACTCA	ATAAAGTTTT	TATATTGCTG	TGACTAGTAG	TAATTACTGG	
GTGGCTACCT	GTGTTGGGAA	AACAGAGGGT	AAAGTAGGCC	TGAACAGGTA	5800
AAGGGAAGTG	CCTGCGTCTC	GGGTGCTTC	AGCCCAGGTG	GGATTATGTC	
TCCTAAGGGA	CAGAAGCCTG	GCCTGGAGCT	GGAGGAAAGG	GAACAAAAG	5900
GGAACTCAAC	ATCCTTCTGA	ATTTCTCACC	ATTCAGTGGG	CAATGCAGAG	
CTCACAGTGT	GTGTGTGTGT	GTGTGTGTGT	GTGTGTGTGT	GAGAGAGAGA	6000
GAGAGAGAGA	GAGAGAAAGT	GGGTAGGGA	GTAGGGAAGA	ATGATCAGG	
AGAGACTGTG	GCAAGCAAAA	CAGGATTTTG	CTGCTCTCAA	AGAGCTTACA	6100
GCCTAGTAAC	CAAGATGGCT	TACAGTGAAA	AATGATTCCA	GAGCAATCCC	
GAGGAAAATA	TCCACAAATG	CATTGTGATG	TGGTGTCTCG	GAGCACCAGT	6200
TGGGAGGAGG	AGGAACTGGG	GAAGGAGGTG	AGCCTTAGTC	CATGCTCTTT	
CCTTGCTTAG	CAGGCTCTAG	CTCCTGCGCT	CAGCTCCAGA	AAATTCAGGA	6300
GCTTCCCCAC	GCTGCTTCAG	TGCTCTTCAC	TGTGCAACTG	CAGCACTCCC	
TGTATAGACT	TCAGTGCCTA	CAACTGACTG	TCTTTGACTC	AAGTGAAGAG	6400
TCTTGAAGAG	ACGAGCTGTG	TATTATCCAC	CTCAGCATCC	CAGCACCCA	
TACGGGACCT	GTCAACATTA	CTGTGCCCTT	TAACATTTTG	CTGAAGGAAT	6500
TAAAGGAACA	GAGATGTGTC	AGATGGGATG	GCGGAGGGAA	AGCCTCATAG	
AAAAGTGGAT	GTGGAGCTGA	CATCTGAAGT	CACTGCGCTG	CAGGGTAGCT	6600
ATAAAGGAGG	GAAGCAGAGT	TGGATACTGA	TGTGAGGAAG	AGGAGAGGAA	
TGAGAGAGTG	GGATTTTGTG	TTGATGGGCA	GGGTGGCAGG	AGGCACAGCA	6700
CCTTGTTTCG	GGAGTGGAAA	AACCATGTTG	AGAAACACTA	AGAAATGTGA	
ATGGGAGAAAT	TAGAGGGAGT	GGGGGAGAGG	ATGGAGGAAG	AGTGTGGAAT	6800
ATGGTTCCAG	GTGGAGGAAT	TCATTCAATC	GTTTATTTCAG	AAGCTGTTCT	
CCTAGGGCAC	ATTCGTGTCC	CAGACTGTGA	TTAGAAGTGA	GTTGAGGCAT	6900
CTCAGATGGG	TGCTGTGGTT	CATGCCTGTA	ATTCAGCAC	TTCAGGAGGC	
CGAGGTGTGT	GGATTGCTTG	AGTCCAGGAG	TTGAGAGCCA	GCCTGGGCAA	7000
CACAGCAAAA	CCCTGTCTCT	ACAAAAATA	CAAAAGATTAG	CGGGGCATGG	
TGGGGCGTGC	TGTGTCATCC	AGCTATTCCG	GAGACTGAGC	TCGGGAGGAC	7100
GGCTTGGGCC	CAGGAGGTGG	AGGTTGTAGT	GAGCCCTGAC	CACACCACTA	
CATTCCGTCC	TGGTGGTGAA	GTTTGCAGTG	AGCTATGATT	GTGCCACTGC	7200
ACTTCACCTT	GGGTGACAGA	GTGAGACCTT	GTTTCAAAAA	AAAAAATAAA	
AAAGTAGTGA	GGCATCTGTG	GAAGTCTTCA	GATCATTTC	ATGACCATGG	7300
AAATGCTGTT	TGGAGCCAGG	CCCTGGAGAT	GGAGAGGAAG	GTTCACACAC	
TTGTGCGTGC	AAGTTAAAGC	CTGAATGAAG	ATTTAAAAAG	TGTGTAGGAC	7400
GGATCGGAGG	AGGAGAGAGG	CTAGAAGACA	CTTGAATATA	CCGAGGTGTG	
AGGCAACCCA	GGAATGCGGA	GAGGACCCAG	AGATCACAGG	GGGAGGCCCT	7500
GCAAGATGAA	CTGACACATG	GGATGCGCGT	AGGGATAGGG	ATGGGGCCCT	
GGGGAGAGAG	CGTGCCCAAGT	TCTCAGCATT	CGTCCGGGAA	GTGATGGGTG	7600
TGTCAATTGT	CTAGGTGAGG	AGATGGATGA	ATTCCTGTCT	GGGCATGTTA	
AGGGTGGAGG	AAATGGTCAT	GTGGAAGGGT	GCGCCTACCA	AGGCTGGAGGA	7700
GAGGTGCTGC	AACTTCTTTC	TGCTTTTGTA	TCATTTCAGC	ACACTGTGTT	
CACCTCATGC	TGGTTCTCAA	AAGGAGAGGA	GCACACCAGA	CTCTTAAGTA	7800
AGGGTGTGTG	TGCTTGTGTG	TGGGGAGGTG	GGGGGATGTT	CTGAAACCTC	
CTCCCCGGAG	ATAAATATAT	TCCTACCAGG	GGTGTGTCT	CTCACCCTCC	7900
TCTTTTGGGA	ATCACTGGCT	TCTACTAGAG	TGGAAGACAG	ATGTATCATC	
AGATCGATCA	GTTGATCCAT	ATTTATCTGC	TCCCAGTCTG	GAGGTCTGGT	8000

FIGURE 1C

TCTGGGAGCT	GAGAGGACAC	CAGGGGAGGA	TAAGACACTT	TCTGACCAAG	
ACATTTTTTG	ATCTCTCATC	TTATAAGGTT	CGTGGTCACT	TTGGGGAGAT	8100
CATATCTGTC	ACCCAACATA	ACCATATTAT	GATAAGAGCC	AAAAGTAGAT	
AGGGTCAGTT	CACGTGCTTC	GAGTTCACAG	GGACTATGGG	TCTAAGGAGC	8200
CGGGGTGGAG	GAACAGACAC	TCGTCAATGG	TGGCTTCACG	GGAGGGAGAT	
GGGATCTCAA	CTGGGCCCTT	GGAGGAGAAG	CTGCCACGAC	CTCCCCCAAC	8300
ACCTTGACAT	TAAATGAACA	GACACATGAA	TGAGGGGGAA	AGGAAGACTA	
ATTGGGTCCC	TGCAAGGTGG	CTGGATCGGG	GTCAAGACCAC	AAGGCCGATC	8400
TCAGGTCGTC	CTCCCCACTC	TGCAGCCCCA	GCACAGGAAG	TACACCTTTA	
AAGCCTCCTC	TGGCGGAAAT	TGTGGGGGAG	TTGGAGGGGT	GTTGGGCCAC	8500
CCCTCAACT	GTCTCTCCAC	AGGCACCCCA	GCTTCCTGCC	CTTCTGCTCC	
AGGCTGGAGT	CTGGGCCTAA	AGAGCTCACC	TCCTGTTTCT	CCTGTTTGGC	8600
TTCAATTACG	CAACTGCTGA	GGACTGGGCT	TACTGGGGCC	AGCTGGTGCC	
AGCAGTGGTG	CCCAGTGGTG	GGGAGTCTGA	GGGCCCTGGC	TCTTAGGGAT	8700
CAGAGAGGGC	TGACCTGGAG	CATTCTGGGG	GCCAGGGGAA	GCCTAGGAAG	
CAGGGCTGTT	TCTTCCATCC	GGCATCCCTT	CTTGCTGCT	CCCTCGTTCC	8800
TGGAAGTGGG	TGTTCAGGGC	TCTGGAGGCT	TTCCTGTATT	CGCAGTGGGC	
TTGGGAGAGG	TCTGTGGAGA	CTCAGAACTG	GCCTTGTTTC	CTAAGGATTG	8900
TCTGGGGACC	CCAGGGAGGC	CCCCAAACCC	AGCACAACTG	CTCAGAACCA	
CGCAGGCTGT	GGGAATGCGG	TGAACCCAGG	GTGGGAGGGC	AGCCTTGGGT	9000
TGCTTCTGTC	TGGGACTGGG	GAGTGTGGGG	GGATGGAGTG	AGAGCTCAGC	
GAATGGGTTT	AGCTGTTGGA	GACTTGTTGA	ACTGGGAGGA	GGAGCTGGGG	9100
CGGGGCTCA	GCTAAAGGCC	GCTGAGGGGC	TAGGAGGAGC	CAAGTGGCCC	
TCAGGGAAGG	GAGGGCACAG	ACCTGATGGG	CGGAAGCCAG	GGTCGAGGGA	9200
GACTTCCCTT	CGGGATGGAA	TGGGGAGAGG	GAGGCATTTC	CCGGAACATG	
TGGGCCAAAT	GGGACAAAGG	TCTGTGGCCT	GGCTCTTTTG	ATGGGAGGGA	9300
GATGGATGGG	GGTTGAGTGG	GGATGGGAAG	GAGGCACTTG	GCCATGGGAA	
GAAGAGATTG	GATGGAGTCC	CACCTGCATG	CAGGCTGGTG	CCTTCTGCCT	9400
TTCTGCTGAC	TCATGACCCCT	TGAGGAGCTG	GGGAAGCTGC	TAGTTCCTCT	
TCCCTTCCTC	AGGTTCCCTC	CCCTCTGGCC	TGAGTCACTG	GGCGCGAGTT	9500
GCTGGGAAAA	GATTTCCTCT	TCCCGGATCT	GACTTAACCC	CCAGAGTGTCT	
GGAAGAGAAA	GGGAACACGT	GGCCTGAGAA	AGCCTCTCTC	CCTCCCTCCC	9600
TCCAGGGAGG	CTCATCCCCC	ACTGGCCAGA	GGTCCCTGAA	AAGCTCCCTT	
TAAGGCTGTC	TGGGGCTGGC	GTCCCCCAGT	TCTTCATCAT	GACCTCTGCCT	9700
CAAGCCCCCT	GGATGGGATT	CAAAGTACCA	GTGACCTTAG	GTGCTCCAGT	
GGCTTCTTCG	GGGAAAGGAA	CCACACTTTC	AGGACTGGGA	AGTCTCTCCC	9800
ATCACACCCC	CAAAACCCTC	CTGTTGCCCT	GGAAGCCCCA	GCTCTGTTCT	
CAGCAGAGGT	GGCACGGTGT	TGGCTGGTGC	GGGCAGGGGA	AGGTTGTTGT	9900
CTCTCTGAGC	GGGGCACACG	CCTCCACCTG	CGGGGGCTGC	TGTTGTGTTT	
TCTGTGTGGG	CTTCCCCTGT	TGCGGCTGTA	GGCTTGAATC	TCCGGGCCCTG	10000
CACAGCTTAC	AGCTGCACGG	TCTCCCCTGT	GCTGACTCAG	GGTGACTGGC	
CTCTGCTGCC	GAAATGTGGA	GTTGGTGAGG	CTGGGTGGGT	GTGGGCTGCC	10100
TGACCCCTCT	TCCCTGCCCT	AGGGTTTCTG	TGATCTGGTG	AGTCAGTTGC	
TCCCCAGTGT	TTAACAGACA	TTGAGGACAC	CCTCTTATCT	TTACACAAGG	10200
TGTCCTTTAT	AGTAGAAAAA	AAAAATGAAG	CCAGGGGAAA	ACCAGAAATG	
AAAGCTGCAG	AGATCAAAGT	CCAAGTTAGA	GCTAAATATT	CATCTCTGCG	10300
TTTGCTTTCC	TGGCACTGAT	GCCGGAACAG	GACAAGCATC	TTAGCTGCTG	
TGGGGTTGGC	CTGAGACTGC	AAAGCACACC	TTCCAGAATG	CCATGGTGTG	10400
CAGGGGGCTC	CAGGACTCCC	CAGCACGCCC	TCAGCTCTGA	CCTGACAGTC	
ATCCAAAGTG	GGTCGCTAGC	CTTGGCCAGC	TCTATTGGCC	TATGTCTCTG	10500
ACACCTTTGC	CCACTCCTGC	CCCCGCTCA	ACTTTGTCCC	CCGTCTACCC	
ATGCAGGATG	CCCAACCTTT	CCCTTTTACT	CTCCTCCCCA	TTTGTCCTTG	10600
CCAAACCCGG	GTGTTTGTAA	ATTTTGAGGT	GGAGGGGATG	GGCCAGGGAA	
TGTGAGGGCG	GAGGCAGATT	GAGGTTTGAT	ACAAACATGT	AAATAAATCT	10700
CCTTCTTCTG	TCCACTCCCC	AGGAGTGGTG	CTCACGGGAA	CATCATCGC	
CCCCACCGCC	AGCTGACTTT	TTCAAGAAAG	TTTTCATGGT	GTAACATATT	10800

FIGURE 1D

CCTGGGATGT	GCATAGATCC	TCATTGTTTA	CCTCTGTGAA	TGTTGCGAAA	
GCATACACAC	GGTGAACCCA	GCACCCAGAT	GGAGAAACAC	CGCCCCAATC	10900
TTTAGGGCTG	CTTGTTGGAA	GAAGGGGCCA	TCACTGAAGT	AACTCTGCCAA	
TTCCCAATCA	AAAACACATC	CTTTCAACAT	CTGCCCTGTG	TCCAGCACTG	11000
TTAGCTGCTG	TGGGGGATT	CACAGTAAGG	ATAAAATACA	GGGCTGGGCT	
CACGCCTGTA	ATCCTAGCAC	TTTGGGAAGC	CAAGGTGGGA	GGATCACTTG	11100
AGCCCCAGAT	TTTGAGACCA	GTCTGAGCAA	CGTAACACAGA	CCCTGCCTCT	
ACTAAAAATA	AAAAAAATAT	AGCTGGGCAT	GGTGGTTCAC	GGCCGCTAGTC	11200
CCAGCTATT	AGGAGGCTAA	GGTGGGAGGA	CTGCTTGAGC	TGGGTGGTG	
GAGGGTGCAG	TGATTGCATC	ACTGCACCTC	AGCCTGGACA	ACAGAGCAAG	11300
ATCCTGCCTA	AAAAAAAATA	AAATACAGCT	AGATCTGGGG	CCTACTAGCT	
TTGAGTTGAG	GGAAACAAAA	TGAACACACA	GGACAACCTAG	AGAACAATTA	11400
AGCATCAGAT	TGATATGGCCC	CAACTGTCTA	AGTTTCAAGG	AGAAACTCTA	
AACTTAGTGA	GTGGCGTGGC	CTGGGCGGAA	TGTTTCACTG	AAGGAAGGACT	11500
TGAGCCAGGG	AAGTTTTAGA	TCTGCTACCC	CTAAGCTTCC	CATCCCTCCC	
TCTCTTGATG	GTGCTCTCTC	TATCTGATT	TTCCCCAGGT	GCTCCTGGAG	11600
[EXON 2: 11584..					
CTGTTGGTGG	GAATATACCC	CTCAGGGGTT	ATTGGACTGG	TCCTCACCT	
AGGGGACAGG	GAGAAGAGAG	ATAGTGTGTG	TCCCCAAGGA	AAATATATCC	11700
ACCTCAAAA	TAATTGCTAT	TGCTGTACCA	AGTGCCACAA	AGGTAGGGGC	
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AAGTGAAAC	GGTGAATGCC	CTCAGGTCTG	GGGTGCTGCT	TCTTTCTCTG	11800
CTTCTTCCAG	TTGTTCTTCC	CTAATCTTGC	TGCTCTCTCT	GGGCTGGGAT	
TTTCTCCCTC	CCTCCTCTCC	TAGAGACTTC	AGGGAATCGG	CCCTGGCTGT	11900
TGTCCTTAGC	ATGGGGCTCC	TTCTTGTGTG	TCTCACCCTG	CCTCAACTCT	
TGCGGCCCCA	TTACAGAGAA	CCTACTTGTA	CAATGACTGT	CCAGGCCCCG	12000
T					
[EXON 3: 11968..					
GGCAGGATAC	GGACTGCAGG	GAGTGTGAGA	GCGGCTCCTT	CACCGCTTCA	
GAATAACACC	TCAGACACTG	CCTCAGCTGC	TCCAAATGCC	GAAGGGGTGA	12100
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GTGTGCACAG	GCAGGAGAGT	CAGGCGGGTC	TTGAGTGGTG	TGTGGGTGCC	
TGCTATGTG	CAGGCTGGTG	GGTGTGGGCA	GGAAGGTGTG	TGTTTTGGTG	12200
GGACACTGCA	TGGATGTGAG	TGTGTATTAC	AGAGACACAC	ACTTAGGGGT	
ATGTCAGGAA	GGGGATGCAG	GGACAGGAGG	ATGCAGGACT	CATACCCCAT	12300
CTTCTCCCTT	CACAGAGAA	GGGTGAGGTG	GAGATCTCTT	CTTGCACAGT	
[EXON 4: 12317..					
GGACCGGGAC	ACCGTGTGTG	GCTGCAGGAA	GAACCACTAC	CGGCATTATT	12400
A					
GGAGTGAAAA	CCTTTTCCAG	TGCTTCAATT	GCAGCCTCTG	CCTCAATGGG	
ACCGTGCACC	TCTCTGTGTA	GCGCAGCTCT	CCTGAGGCCA	AGCCCTCTCC	12500
T					
..12466]					
CCACCCCAGG	GGTGGGCCCC	TTCCCCATGC	GGTGGCACTT	CGTTTCTCTC	
CCCTCTCTGT	ATTCTGTGGG	TCTGACAACC	AACTCTCTCT	TGGCCGCGCCC	12600
CACCTGTGCC	CTCGTCACTT	CCTCTGTCTT	GTGGGGTGGG	GGTGCAGGCG	
CTTCTCTCTT	AGCTGTGCCG	CACCTCTCCC	TACAGGCCAG	GAGAAACAGA	12700
C					
[EXON 5: 12686..					
ACACCGTGTG	CACCTGCCAT	GCAGGTTTCT	TTCTAAGAGA	AAACGAGTGT	
GTCTCTGTGA	GTAAGTGAGT	ATCTCTGAGA	GCTGTGGGCG	ACTGGATGGT	12800
..12764]					
GGCATGGGTT	GGGACGGGTG	ACTGGTGGGA	ACCATTAGCT	GGGCAACAGA	
TGCCAGAGAT	CCCCAGAGTG	CTCAGGGTCC	TACTGGCTGA	TAGGAGACGA	12900
CTTCGTTAAG	ACACAGGACA	GTCCTTCCCC	TTGCTCTTCA	AACTGAAGA	
AGTCTTTGAG	GATGGAAGAT	CATGCCCCAA	GGGCTGGCAG	CCCTTCCAAC	13000

FIGURE 1E

TCAGATATGT	AGATTCTTGG	ATCTACGATA	GCTCATTGGT	TCTAGGACAT	
ACACTCTTAT	AGCTCTGAAA	TCAAACCTTC	TATAACTGGT	GACTCATCAT	13100
GGTTGAATTG	GCAGCTCTGT	TTCGCTCTGG	GTAGTAATGT	AAAGAAAAGT	
GCCTTTTATT	CTTGATGGGG	TCTTAGGTTT	GATGCAATAT	GGTATTTCCT	13200
CATTAGTAC	TGTCAGGCG	TCCTTACTCC	TGGCTCCACA	GAGGCTGTC	
TTGTCACTCA	CTTGCAAAGA	ATAAACTCTG	AGGGCTCTCA	GAGTTTGAAC	13300
CCACGACATG	CCACTTACTG	GCTATTGTGAC	TGTGGGCAAG	TTTCTTAAAC	
TCCTTGAGCG	TGACTTTTCT	TTTGTGTGTT	TTTTTTTTTT	TTTTTTTGTG	13400
AGACAGGGTT	TCACTCTGTG	ACCCAGGCTG	GAGTGCAGTG	GTGCAACCGT	
GGCTCAGCCT	CCACCCTCCG	GGCTCAAGCG	ATCCTCTTGC	CTTAGCCTCC	13500
TGAGTAGCTG	GGATTAGAGG	ACACACACAC	TACACCCAGC	TAATGTTTTA	
CTTTTGTGTG	AGACAGGGTC	CTACTATATT	GCCACAGGCTG	GCCTCCGGACT	13600
CTCGGGCTGA	AGCGATCTTC	CGCCTCAGCC	TCCCAAAGTG	CTAGGATTAC	
GGGCATGAGC	CACCACGCCT	GGCCTGGGCC	TTGATTTTCT	TATATTTAAA	13700
TGAAGCATAA	TGACATTCAT	TTGGTGAATT	TGTGAGAACC	AAAAACAAGG	
AAACAACAAC	AACTTACAAC	ACGCTTGACA	CAAAACTATT	TTTTTCCCAT	13800
TAATCTTCTT	TTTTTTTTTT	TTTTTTTTTT	TTGACACAGA	GTCTGCTCT	
GTGCCCCAGG	CTGGAATGCA	TGGGGCGCAT	CTCGGCTAGC	TGCCACTCTT	13900
GCCTCCCCAG	TTCAAGCAAT	TCTCCTGCTT	CAGCCTCCCA	AGTAGCTGGG	
ATTACAGGCC	CTGGCCACCA	TGCTTGGCTA	ATTTTGTGAT	TTTTAGTAGA	14000
GATGGGGTTT	CACCATCTTG	CTCAGGCTGG	TCTTAAACTC	CTGGTGATCC	
ACCTGCCTCT	GCCTCCCAAA	GTGCTGGGAT	TACAGCCGTG	AGGCCATGCA	14100
CCGAGCCGGC	TTCATCTCTT	CTTGAATATC	CTTTTATACC	ATTCTATGTG	
GTTCTCACCA	TGAGCTTGAG	TGGTGGGCTA	AAGTGCCCTT	CCCTGCTTTC	14200
AGCTTCTCTG	TGGGAACTCA	CTCTCTCAAG	TTCCTTCCAG	CACCCACCCA	
TAGAGTTCCC	ATCACTCCAC	ACTGTCCAGT	GAGCAATACC	AACATGGAAG	14300
ATCTGCTATG	TTACAGAGGT	GCTCTCTGGC	TGCCCCAGTA	ACATGTGTTT	
TTAAATTTT	CACATGCATG	TTTGACCGAC	ACTCCCAGAA	CTCAGGTACT	14400
GTAAC TAGCA	GTGTCAATTA	AGAAAAAGCC	CTTTAACCTC	TCTTTGCCAA	
AGGATTTCTA	TACAGAAAAA	AGTGAATGAA	CAACAATCCC	ATAACAGCTA	14500
TCTGGCTACC	TTCTCAAGCA	CTTATTAAT	GAGGCATAT	GATTTTGCCT	
AACCTCTCAAT	CTTGAGAGGT	GGGCGATCCC	TGTGGTGATG	AGGAAACCGA	14600
GGCTTGGGGG	TTAATGGCTT	CGCTAGATT	ACTCTGCTAG	CCAGGAATG	
AACTGGAATT	TACACCTTGA	CCCTGACTGC	TTTTACATCT	TTCTACACAG	14700
CTTTTCTCAAG	ATCCCTGCCA	ATTCTAAAT	TAAATGATTC	TATGATTAA	
CTGGTTTCAT	TCTTCTGCAT	CAGTGTCCAA	ACAAATATAT	ATCAAGAGAC	14800
AGCAAAAATA	TTTGTAAGA	AAGGATGTCC	AACAATCTGT	GTGGTTGTTT	
A					
TTCTGTGTTT	CTCCAATGGT	AGGGCCTCTG	TTTCCAGAGT	CCGTCTCTTC	14900
TTTTAGCTGT	AGAGAAAAGC	TGGAGTGAC	GAAAGTTGTC	CTACCCAGCA	
[EXON 6: 14907..					
TTGAGAAATG	TAAGGGCACT	GAGGACTCAG	GTGAGGAGAA	GTGACCTGGT	15000
..14980]					
GGCCATGCTC	ACCTGCGCTC	TCCCTCTTCT	TGCCCCACAT	CGTCCATCCA	
TCCCAACCAT	CCATCATATC	CTGCGGCCCC	CCTCTGCCCC	CTCCTCTGAC	15100
T T					
CAACACCTGC	TTTGTCTGCA	GGCACCAACG	TGCTGTTGCC	CCTGGTCATT	
[EXON 7: 15122..					
TTCTTTGGTC	TTTGGCTTTT	ATCCCTCTCT	TTTCAATGGT	TAATGTATCG	15200
CTACCAACCG	TGGAAGTCCA	AGCTCTACT	CTATGGTGAG	TGGGGCTCTT	
..15235]					
GGGAGGGGAG	GGGAGCTGGT	GGGGGTGAGG	GAGGACATGG	GTGGGTGCGA	15300
TGACATGTGT	TGGAGGGAGG	TGAGGAGTGT	CCCTCTAGTT	CATACCGCTG	
GGGACTCTGG	GCAGAAAGTG	GCCTCTGGAT	GTGCGGGGAG	TGTGCGAGCT	15400
CTACATGATG	TCTCTCGTTC	CTGGGGCCAC	ATGGGCGCTG	AGGCATGTCA	

FIGURE 1F

TTTGGCCTCT	TTCTATACTA	CACCCACCA	CCATACAGAC	ATCCCCGTCT	
GCCCCCTCCC	AGGCCAGCTT	CCCTCCAGCA	CTTACGATGC	GGACAGAGGG	17900
GTGTCCAGCT	GAATGATGTG	GGGCCCCCGC	ATCCTCTGCA	CGCTGGGCGC	
AGTCAGCTTC	CTGTGGCCTG	TGTCCTGGGG	CTCCTCGGCC	CCTCTCAATCC	18000
TTTGGCTGGC	CAGCTCCTCC	CGGATCTCTC	TGAGCATGTC	CTCAGCCCGC	
ATTGGGCGCA	GGGATGTGTG	GCCAGCTTTC	AGGAACAGAG	GCCCCCTTTC	18100
TTCTCTCTCC	CCTGAGGACT	CCAGGGGGCT	TTCCCCGGCA	GAGTCAGCAT	
GGGTGGGGGA	GAGGAGGAAG	TGGCCCCGAA	GCCGGGCCCT	TGGAGTGT	18200
TCACCAACCA	CATTCCCTCG	CTCGGAGGCC	CCATCTTCTT	CTCAGACCA	
GGTGTGGTGG	TCTCTCTGGG	GAAGACTGCC	TCCTTTTAGG	ATTCTCTTCG	18300
GCAGTTCGGG	GGCGCTTCGG	CGTTGAGGAG	CTTGGGGGTC	GGGAGGGTGG	
GGACGCAGAG	GGATGTCCCG	GAGTTCAGG	GTGGAGAAGG	TGAGGCGAGG	18400
GTCCCGCCGA	AGGGCTCTTT	GGCGTAGACG	GCTCAGTGGG	GAGCGGGACC	
CCTGTGGGGT	GCCTGGGATC	AAAGTGCCGT	AGCCAGAGTC	TGAGGTATCA	18500
TCGTGCACAA	GGGGAGCATC	TTCATCTGTG	TCTTCTGTCA	CCACCAGGTT	
GGGGATAATG	GTCCGAGAAT	CAGGAGTCCT	ACAGTTAATG	GCAAAAGAGT	18600
AGATGCGTAG	GGGTCAAGTT	CAAGTCCAGG	GAGTTTCCCT	TGATCATAC	
ATCCAGAAAT	GGCCCTCTCT	CCAAACCTAT	TTTGGTATCA	TCTTCTCATC	18700
GCAGCTGATG	TGTTTTTCTC	ATCTGGCTGG	CTAGATTTTA	AGCTCCTAAG	
AGAGTACGGG	CTGCCCTCTAT	ACTGTTTAT	CCATAGCATC	TGCTCCAGGA	18800
TCTTGATATC	AGTGGGTAGT	CAGGTTTTTG	CTGAGTGGTT	CTGGAAGTTA	
CCTGATATTA	TCCTCAATGA	TCGATTCTTC	TTTTCTCCTT	AAGCTGCTGC	18900
CAAGCAGTGG	TGCTATCCTA	GACGAACCTC	ACACTCCCGG	GGGATTGGGC	
AGCTCTAATA	TTCTGCAGAT	CCACACCTAC	CTTCACTCTC	GAGCTTGCTC	19000
CTCTCACAGT	GCTCCTGTGT	GACTCTAGGC	AGGCTAACTC	TAGTACCTGT	
CTGTGGCCCTA	TCGCCCACTC	CCAACCAAC	ACGGCTGGTA	CCAACCTTCC	19100
GACCAACAC	AGCTGGTACC	GAGCTTCCCT	ACCCTGCCCT	AGCCTGCGT	
TCCTCTATCT	ATTCCCAATT	CCACAAAAA	TGTGCAGTAA	TGCCATTTCT	19200
CAGCCTTATG	GCTCCTCTCT	CTGCTCGGGG	GAGACCTTGT	AGTCCGTGTG	
AGCCTTACCT	CCCCCTGCG	CTGCTCTGAG	AGCCCTCCAG	GGAAGGCGTG	19300
GAGGGCCTGG	TGCTGGGGGA	CTCCTGTGCC	TGGTCCCGAT	AGAGGGTCAG	
GAGCTCCTCT	TTCTGTTGAA	CATACTCCTC	TGCCTTCAGC	TTCTGTAGGG	19400
CGGCCCTGGG	CAGGACACTT	TCGTTATTAA	GAGCTCTCAT	TTATTGAGCA	
CTTGCTGTTT	GCCAGGCACC	CTGCTAAGTG	CGTTACATAT	ATTACCTTAT	19500
TTTATTTTAT	TATTTATTAT	ATTTTTTGAG	ACTGAGTCTT	GCTCTGTAC	
CCAGACTAGA	GTGCAGTGCC	ACAATCTTGG	CTCACTGCAA	CCTCCAGCTC	19600
CTGGGTTCAA	GCGATTCTCC	TGCTCAGGCC	TCCTTAGTAG	CTGGGATTAC	
AGGCGCCCGC	CAACGTGCCC	GGCTAATTTT	TGTATTTTTA	GTAGAGATGG	19700
GGTTTACCCA	TCTTGGCCAG	GCTGGTCTCA	AACTCCTGAC	CTTGTGATCC	
ACCCCCCTTG	GCCTCCGAAA	GTGCTGGAAT	TAGACGTGTA	AGCCACCGTG	19800
CCGCGCCTAT	ATTACCTTAT	TTAATCTTTA	CAAAAACCCC	ATGAACGAGA	
TATTTTATAC	CCACCTTACT	ACTGAGACAT	GGAGACTCTA	AGGTTAAGTA	19900
ACGTCTGTAG	GGGGTACTTC	TTACCATAG	AAAGTGGGGT	GGTGGCGGGA	
TTTTGGTGCA	CAAACCTCTG	GAGCTAGTGT	TGGGGGTGAG	TGGGGTGAAC	20000
AGAAATGGCC	TTTTCTTACC	TGTACAGGTC	TTCTGTGCTC	TCATGTCCCA	
TTGGCAGACC	TGTTATCAGG	TCTTCCCCCT	CCTTCAGGAA	GCCTTCCCTG	20100
GTTGTGGTGT	ATGGTAGAAT	AAGTGTCTGT	AATTGGTACT	GAGTGTCTCT	
TCAAGAGCAT	CCCTCTCCTA	CCACCTGGGC	CTCTGCCCTG	AGGCTGGGAG	20200
GAGCAGGAGG	GCGAAGCTGT	GGCAGAGGTG	GGCTTTGTCC	CAGGCTGAGG	
ACTCTGTCTT	CTCTCAGAGG	GAGGAAGATT	CCTAGAAGGC	TGAGGAGAGG	20300
ACGCATTATA	TTATCTGCCT	TCTCCTCCCC	TCAGCGATTT	CATACAGGTA	
CCATCAAAAG	GAATATGCGC	CACCTGAGAA	AAAAATTTCA	AAGCACTTTT	20400
GCACATGTGG	TCATTTTGATA	CACATCATTG	CCCTGTGGTG	TGGAGAACAT	
GAATGTTAGC	CCATTTTACA	GACAAGAAAC	CTAGACCTAG	AGAGGTGAAG	20500
TGACTTGCTC	AAGGTGCCA				20519

FIGURE 1H

POLYMORPHISMS IN THE CODING SEQUENCE OF TNFRSF1A

ATGGGCCTCT	CCACCGTGCC	TGACCTGCTG	CTGCCCCAGG	TGCTCCTGGA	
GCTGTTGGTG	GGAAATATACC	CCTCAGGGGT	TATTGGAGCTG	GTCCCTCACC	100
TAGGGGACAG	GGAGAAGAGA	GATAGTGTGT	GTCCCCAAGG	AAAATATATC	
CACCCCTCAA	ATAATTCGAT	TGCTGTACC	AAGTGCCACA	AAGGAACCTA	200
CTTGTACAAT	GACTGTCCAG	GCCGGGGCA	GGATACGGAC	TGCAGGGAGT	
	T				
GTGAGAGCGG	CTCCTTCACC	GCTTCAGAAA	ACCACCTCAG	ACACTGCCTC	300
AGCTGCTCCA	AATGCCGAAA	GGAAATGGGT	CAGGTGGAGA	TCTCTTCTTG	
CACAGTGGAC	CGGGACACCG	TGTGTGGCTG	CAGGAAGAAC	CAGTACCGGC	400
	A				
ATTATTGGAG	TGAAAACCTT	TTCAGTGCT	TCAATTGCAG	CCTCTGCCTC	
C					
AATGGGACCG	TGCACCTCTC	CTGCCAGGAG	AAACAGAACA	CCGTGTGCAC	500
CTGCCATGCA	GGTTTCTTTC	TAAGAGAAAA	CGAGTGTGTC	TCCTGTAGTA	
ACTGTAAAG	AAGCCTGGAG	TGCACGAAGT	TGTGCCTACC	CCAGATTGAG	600
AATGTTAAG	GCACTGAGGA	CTCAGGCACC	ACAGTGCTGT	TGCCCCTGGT	
CATTTTCTTT	GGTCTTTGCC	TTTTATCCCT	CCTCTTCATT	GGTTTAATGT	700
ATCGCTACCA	ACGGTGGAA	TCCAAGCTCT	ACTCCATTGT	TTGTGGGAAA	
TCGACACCTG	AAAAAGAGGG	GGAGCTTGAA	GGAACTACTA	CTAAGCCCTT	800
GGCCCCAAAC	CCAAGCTTCA	GTCCCACTCC	AGGCTTCACC	CCCACCCCTG	
GCTTCAGTCC	CGTGCCAGT	TCCACCTTCA	CCTCCAGCTC	CACCTATACC	900
CCCGGTGACT	GTCCCAACTT	TGCGGCTCCC	CGCAGAGAGG	TGGCACCACC	
	A				
CTATCAGGGG	GCTGACCCCA	TCCTTGCGAC	AGCCCTCGCC	TCCGACCCCA	1000
TCCCCAACCC	CCTTCAGAAG	TGGGAGGACA	GCGCCCACAA	GCCACAGAGC	
CTAGACACTG	ATGACCCCGC	GACGCTGTAC	GCCGTGGTGG	AGAACGTGCC	1100
CCCGTTGCGC	TGGAAGGAAT	TCGTGCGGCG	CCTAGGGCTG	AGCGACCAAG	
AGATCGATCG	GCTGGAGCTG	CAGAACGGGC	GCTGCCTGCG	CGAGGCCCAA	1200
TACAGCATGC	TGGCGACCTG	GAGCGGCGCG	ACGCCGCGCG	GCGAGGCCAC	
GCTGGAGCTG	CTGGGACGCG	TGCTCCGCGA	CATGGACCTG	CTGGGCTGCC	1300
TGGAGGACAT	CGAGGAGGCG	CTTTGCGGCC	CCGCGGCCCT	CCCGCCCGCG	
CCCAGTCTTC	TCAGATGA				1368

FIGURE 2

ISOFORMS OF THE TNFRSF1A PROTEIN

MGLSTVPDLL	LPQVLELLV	GIYPSGVIGL	VPHLGDREKR	DSVCPQGKYI	
HPQNNsicCT	KCHKGTyLYN	DCPGPGQDTd	CRECESGSFT	ASENHLRHCL	100
		L			
SCSKCRKEMG	QVEISSCTVD	RDTVCGCRKN	QYRHYWSENl	FQCFNCSLCL	
		Q	H		
NGTVHLSCQE	KQNTVCTCHA	GFFLRENECV	SCSNCKKSLE	CTKLCLPQIE	200
NVKGTEdSGT	TVLLPLViff	GLCLLSLLFI	GLMYRYQRWK	SKLYSIVCGK	
STPEKEGELE	GTTTKPLAPN	PSFSPTPGFT	PTLGFSVPVS	STFTSSStYT	300
PGDCPNFAAP	RREVAPPyQG	ADpILATALA	SDpIPNPLQK	WEDSAHKPQS	
	K				
LDTDdPATLY	AVVENVPPLR	WKEFVRRlGL	SDHEIDRIEL	QNGRCLREAQ	400
YSMLATWRRR	TPRREATLEL	LGRVLRdMDL	LGcLEDIEEA	LCGPAALPPA	
PSLLR					455

FIGURE 3